WATER QUALITY / DATA SHEET

SS308-01-WIFI

Industrial Ion Transmitter

Continuous ion concentration and temperature monitoring with WiFi data upload.



Overview

- Select from eight ion electrode types for aqueous monitoring.
- Automatic temperature compensation supports stable measurement.
- Designed for industrial wastewater, surface water, drinking water and process control.

Ion Options	Resolution	Power Supply	Communication
8 types	0.01 / 0.1 mg/L	DC 10–30 V	WiFi 802.11b/g/n

Key Advantages

- Automatic temperature compensation.
- LAN and wide-area network communication.
- Dynamic DNS and custom platform integration.
- Adjustable upload interval from 1 to 65535 s.
- Bluetooth configuration using an Android app.

Application Scenarios

- Industrial wastewater monitoring.
- Surface water analysis.
- Drinking water monitoring.
- Industrial process control.

SYSTEM DATA

Technical Specifications

Item	Specification
Model	SS308-01-WIFI
Power supply / consumption	DC 10–30 V / 0.8 W
Wireless communication	WiFi, IEEE 802.11b/g/n
Range / resolution	0–100.00 mg/L / 0.01 mg/L: all ion options except chloride 0–1000.0 mg/L / 0.1 mg/L: sodium, magnesium and calcium only 0–3500.0 mg/L / 0.1 mg/L: chloride only
Ion measurement error	5% FS
Repeatability error	±1 mg/L
Response time	<60 s
Transmitter environment	−20 to +80 °C; 0–95% RH, non-condensing
Electrode operating temperature	0–50 °C
Electrode pressure resistance	0.2 MPa
Electrode cable	5 m standard; 10 m, 15 m or 20 m customizable
Electrode service life	3–6 months
Housing dimensions	117 × 87 × 43 mm maximum
Electrode dimensions / thread	212 mm overall length; Ø30 mm body; NPT 3/4 at both ends

Item	Specification
Display	Without OLED
Data acquisition interval	2 s
Data upload interval	10 s default; configurable from 1 to 65535 s
WiFi security	WEP / WPA-PSK / WPA2-PSK; WEP / TKIP / AES encryption
Networking	LAN and WAN communication; dynamic DNS support

PRODUCT SELECTION

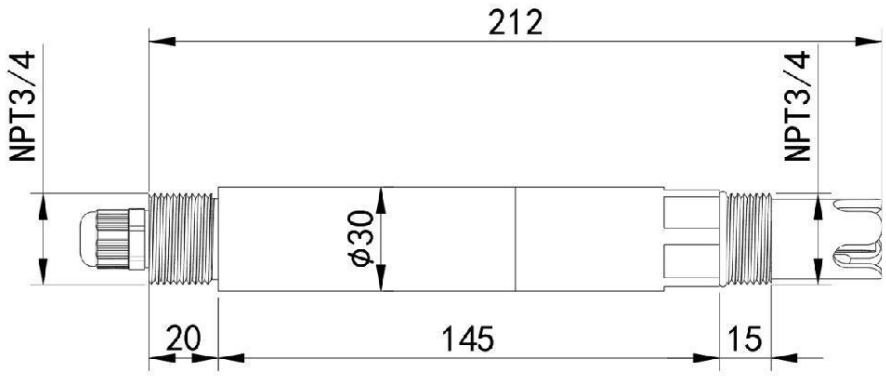
Ion Options and Operating Conditions

Ion / working pH	Main interfering ions
Ammonium / pH 4–10	K+
Nitrite / pH 2.5–11	Acetate, F−, Cl−, NO3−, sulfate and other monovalent anions
Nitrate / pH 2.5–11	ClO4−, I−, CN−, BF4−, Cl−, NO2−, organic acid ions and other monovalent anions
Magnesium / pH 3–10	Zn2+, Fe2+, Cu2+, Ni2+
Sodium / pH 5–12	Ag+, Li+, H+
Potassium / pH 2–12	Cs+, NH4+
Calcium / pH 3–10	Pb2+, Hg2+, Cu2+, Ni2+
Chloride / pH 2–12	S2−, I−, CN−, Br−

Specify SS308-01-WIFI, ion type, applicable measuring range and electrode cable length when ordering. Each electrode measures its selected ion; the ion options are separate configurations. This version is supplied without OLED.

MECHANICAL DATA

Dimensions and Installation



Electrode dimensions in millimetres. Housing: 117 × 87 × 43 mm maximum; wall mounting spacing: 105 mm. Use Ø5 mm mounting holes with the supplied expansion plugs and screws.

For immersion installation, route the electrode cable through a waterproof support and seal the upper 3/4-inch threaded joint with thread sealing tape. For pipeline installation, connect using the electrode 3/4-inch thread. Remove the transparent protective cap before measurement.

ELECTRICAL CONNECTION

Wiring Instructions

Connection	Instruction
Power input	Connect the supplied 12 V adapter to the power input, then switch on. The transmitter accepts DC 10–30 V.
Electrode black wire	PH–
Electrode transparent wire	PH+
Temperature wires	PT+ and PT–; either order

Open the housing using the four corner screws. Feed the electrode cable through the PG7 cable gland, connect the electrode and temperature wires to their marked terminals, and tighten the terminals. Keep connectors dry until fully locked.

COMMUNICATION DATA

WiFi Configuration and Data Upload

Use the supplied Android configuration app with Bluetooth enabled. Scan for the device named WIFIOPEN followed by its address code, connect using the default password 12345678, read the current parameters, edit the required network settings and download them to the device. Configure the site WiFi network and receiving platform. After power-up, allow 1–3 minutes before viewing readings.

Network settings: set the receiving IP address or domain and port (local software: 2404; cloud: 8020). For static IP operation, enter the assigned IP, subnet mask and gateway. Upload interval: 1–65535 s, default 10 s. Operation password: 1–8 digits, default 12345678. Use the supplied development documentation for a custom platform.

Monitoring platforms: local software runs on a customer PC or server; the cloud option needs no customer server. Both offer web monitoring, limit alarms, email alerts, history export and permission management. Local SMS alerts require an additional SMS modem.

CALIBRATION & MAINTENANCE

Electrode Calibration and Maintenance

Calibrate before each use; for continuous monitoring, recalibrate every 2–3 weeks and adjust for fouling. Remove the protective cap and tip bubbles before measurement. Rinse after use and store the electrode in its ion-specific diluted standard solution. Electrode service life: 3–6 months.

After long storage, activate in 10 mg/L standard for at least 12 hours, then 1000 mg/L standard for 1–2 hours. Rinse thoroughly and soak in stirred deionized water for 5 minutes, changing water repeatedly. After short storage, soak in deionized water before calibration.

Avoid corrosive media, strong acids or alkalis, strong oxidizing or reducing media, hydrofluoric acid, organic solvents and substances that attack glass or silver/silver chloride. Seawater is not recommended. Protect the membrane from sharp objects and keep connectors dry until locked.

Do not use this device as a safety device or emergency stop device, or in applications where equipment failure could cause personal injury. Read the operating instructions before installation, use or servicing.

Package contents: one transmitter, one ion electrode, one 12 V power adapter, two expansion plugs, two self-tapping screws, nylon protective mesh, certificate and warranty card.

CONTACT / SUPPORT

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